DOCUMENT RESUME

ED 256 300 IR 011 597

TITLE	Computer Technologies and Consumer Information. Interactive Videotex Systems. Report by the Committee on Consumer Policy.
INSTITUTION	Organisation for Economic Cooperation and Development, Paris (France).
REPORT NO	ISBN-92-64-12389-X
PUB DATE	82
NOTE	39p.
AVAILABLE FROM	Organization for Economic Cooperation and Development (OECD), Publications and Information Center, Suite 1207, 1750 Pennsylvania Avenue, NW, Washington, DC 20006.
PUB TYPE	Information Analyses (070) -- Reports - Descriptive (141)
EDRS PRICE	MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	*Computer Oriented Programs; Computers; *Consumer Economics; *Economic Factors; Foreign Countries; *Information Networks; Legal Problems; *Marketing; Merchandise Information; Policy Formation; Social Influences; *Telecommunications
IDENTIFIERS	Canada; France; Germany; Japan; Netherlands; United Kingdom

ABSTRACT

This report focuses on the consumer information potential of computerized telecommunication systems, their possible advantages and drawbacks for the consumer, and the new policy issues created by the new medium, i.e., the possible economic, social, and legal implications for consumers. Topics addressed include the main features of the new communications technology, the present situation of consumer information, the consumer information content of commercial advertising, and consumer information and information needs. Computerized interactive videotex projects launched in Canada (TELIDON), France (TELETEL), Germany (BILDSHIRMTEXT), Japan (CAPTAIN), the Netherlands (VIDITEL), and the United Kingdom (PRESTEL) are discussed individually. Problem areas of videotex are also addressed, e.g., the consumer issues of cost, system access, and acceptance, and legal problems concerning both the information function and operational facilities. Annexes include a discussion of the use of PRESTEL in a United Kingdom consumer advice center and a review of the test service in the first stage of the CAPTAIN system in Japan. (LMM)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

ED256300

IR011597

COMPUTER TECHNOLOGIES AND CONSUMER INFORMATION

INTERACTIVE VIDEOTEX SYSTEMS

OCDE
OECD

PARIS 1982

"PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

OECD

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

COMPUTER TECHNOLOGIES AND CONSUMER INFORMATION

INTERACTIVE VIDEOTEX SYSTEMS

Report by the Committee
on Consumer Policy

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

The Organisation for Economic Co-operation and Development (OECD) was set up under a Convention signed in Paris on 14th December 1960, which provides that the OECD shall promote policies designed:

- to achieve the highest sustainable economic growth and employment and a rising standard of living in Member countries, while maintaining financial stability, and thus to contribute to the development of the world economy;
- to contribute to sound economic expansion in Member as well as non-member countries in the process of economic development;
- to contribute to the expansion of world trade on a multilateral, non-discriminatory basis in accordance with international obligations.

The Members of OECD are Australia, Austria, Belgium, Canada, Denmark, Finland, France, the Federal Republic of Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States.

Publié en français sous le titre

LES NOUVELLES TECHNOLOGIES INFORMATIQUES
ET L'INFORMATION DES CONSOMMATEURS
LES SYSTÈMES DE VIDEOTEX INTERACTIFS

© OECD, 1982
Application for permission to reproduce or translate all or part of this publication should be made to:
Director of Information, OECD
2, rue André-Pascal, 75775 PARIS CEDEX 16, France

Consumer information as a means of promoting the transparency and efficient functioning of markets has been one of the central themes in the work of the Committee on Consumer Policy. The recent development of interactive videotex systems, which merge information, computer and telecommunications technologies, raises new prospects and questions for the marketing of goods and services and in the dissemination of consumer information. Although these developments are at an early stage in most Member countries, the Committee on Consumer Policy thought it useful to review the experience already gained in Member countries in order to draw some general conclusions and to outline possible future action to enhance the potential use of such systems in providing consumer information.

The report has been approved and derestricted by the Council in May 1982.

Also available

ADVERTISING DIRECTED AT CHILDREN-ENDORSEMENTS IN ADVERTISING (July 1982) (*)
(24 82 02 2) ISBN 92-64-22276-6 64 pages £2.70 US$5.00 F27.00

RECALL PROCEDURES FOR UNSAFE PRODUCTS SOLD TO THE PUBLIC (October 1981) (*)
(24 81 05 1) ISBN 92-64-12248-6, 64 pages £3.00 US$6.75 F30.00

SAFETY OF CONSUMER PRODUCTS. Policy and Legislation in OECD Member Countries. (June 1981) (*)
(24 80 05 1) ISBN 92-64-12130-7, 88 pages £3.20 US$8.00 F32.00

CONSUMER PROTECTION CONCERNING AIR PACKAGE TOURS (July 1980) (*)
(24 80 02 1) ISBN 92-64-12077, 44 pages £2.00 US$4.50 F18.00

BARGAIN PRICE OFFERS AND SIMILAR MARKETING PRACTICES (May 1980) (*)
(24 80 01 1) ISBN 92-64-120[illegible], 56 pages £2.70 US$6.00 F24.00

ANNUAL REPORTS ON CONSUMER POLICY IN OECD MEMBER COUNTRIES (*)
Published every year since 1972. Volumes prior to 1979 are available only on microfiches.
1981 (June 1982)
(24 82 03 1) ISBN 92-64-12301-6 125 pages £5.80 US$13.00 F58.00
1980 (March 1981)
(24 81 01 1) ISBN 92-64-12148-X, 198 pages £5.40 US$13.50 F54.00

(*) *"Document" Series*

Prices charged at the OECD Publications Office.

THE OECD CATALOGUE OF PUBLICATIONS and supplements will be sent free of charge on request addressed either to OECD Publications Office, 2, rue André-Pascal, 75775 PARIS CEDEX 16, or to the OECD Sales Agent in your country.

TABLE OF CONTENTS

INTRODUCTION 7

I. BACKGROUND AND SCOPE OF THE STUDY 8

1. Main features of the new communications technology 8
2. The present situation of consumer information 8
3. The consumer information content of commercial advertising 10
4. Consumer information and information needs 11

II. COMPUTERISED INTERACTIVE VIDEOTEX PROJECTS LAUNCHED IN MEMBER COUNTRIES 12

1. Canada 12
2. France 13
3. Germany 14
4. Japan 15
5. Netherlands 16
6. United Kingdom 16

III. TECHNICAL ADVANTAGES OF THE NEW SYSTEMS 18

1. The information function 18
2. Ordering and payment facilities 18

IV. PROBLEM AREAS IN CONNECTION WITH THE OPERATION OF INTERACTIVE VIDEOTEX SYSTEMS 19

1. Consumer problems 19

a) The cost element and the access to the system 19
b) Consumer acceptance 21
c) Legal problems 22

i) problems concerning the information function 22
ii) problems concerning the operational facilities 24

2. Problems from the point of view of information providers 25

a) Cost and access to the system; effect on the market 25
b) Legal problems 26

3. Problems of a general character 27

V. CONCLUDING REMARKS 28

VI. SUGGESTIONS FOR ACTION 29

ANNEXES

I. The use of Prestel in a United Kingdom consumer advice centre . 31
II. Review of the test service in the first stage of the Captain system in Japan 33

7

INTRODUCTION

In current public discussions, the development of computerisation in the business world and in society as a whole is often considered as comparable to the industrial revolution of the 19th century. Although more sceptical minds might argue that revolutions that are announced in advance usually do not take place, it is obvious that Member countries are at present confronted with fast and all-embracing developments in this area, the final consequences of which are hardly foreseeable. The visions accompanying this development, in particular in the field of computerised telecommunication techniques, therefore range from an Orwellian controlled society to a decentralised paradise based on new "soft" technologies.

Possible problems arising in the economic, social and cultural fields, and the responsibility of Member countries in shaping policies aimed at maintaining the delicate balance between the free play of market forces and governmental intervention on the one hand, and between freedom of information and its reasonable regulation on the other, were dealt with at an OECD Conference in October 1980. This stressed the need to keep developments in Information, Computer and Communications Policies under review, to identify policy areas where it would seem desirable to establish international co-operation, to assess the role of OECD and to make recommendations on how it could assist Member governments with the international aspects of their concern.

Among the various statements referring to the complex issues arising in this context, e.g. the impact on the structure of industry, employment, the working environment, etc., a German contribution elaborated on the impact of telecommunications on consumer information(1). At about the same time, during the Paris Conference on "Consumer Power", organised by the French Ministry of the Economy (15th-17th October, 1980), the German pilot project "BILDSCHIRMTEXT" and its application in the field of consumer information was demonstrated in public. These events indicate that the authorities responsible for consumer information policies recognise that the potential development of computerised telecommunications technologies has to be taken into account in their future work.

Most of the new computer technologies have been devised and marketed with the business user in mind. Recently, however, certain computerised communications technologies have been developed which are also or mainly conceived for the general public. The Committee on Consumer Policy has therefore thought it useful to undertake a preliminary study with a view to assembling the information available concerning on-going experiences in this field and analysing the policy issues emerging. The present report, which focuses on consumer information and marketing topics in connection with such new technologies, is mainly based on the information provided by six Member countries: Canada, France, Germany, Japan, the Netherlands and the United Kingdom. In view of the fact that most of the projects have only just started on a trial basis or as pilot projects, the report primarily attempts to put forward the questions that seem important from a consumer policy point of view and to highlight possible problem areas rather than suggest definite conclusions. However, the Committee considered it useful to embark on this subject at a stage where developments could still be guided and influenced before the new media are offered on a larger scale to the general public.

---

(1) Information Computer and Communications Policies for the 80s, OECD, Paris, 6th-7th October 1980, Conference proceedings, p. 255.

I. BACKGROUND AND SCOPE OF THE STUDY

The present note is concerned with the consumer information potential of computerised telecommunication systems, their possible advantages and drawbacks for the consumer and the new policy issues created by the new medium, i.e. the possible economic, social and legal implications for consumers.

Technologies of this type have been developed in different countries under different denominations and trade-names. The present report uses the generic term which now seems to be generally accepted for the above type of communication, i.e. interactive videotex. Systems which are similar, but not interactive, e.g. the sending of frames of information to TV-sets on broadcasting channels are, in this context, only mentioned for the sake of completeness.

1. MAIN FEATURES OF THE NEW COMMUNICATIONS TECHNOLOGY

Computerisation has, until very recently, been limited to the business community and to public administration. In this context, the individual was usually the object of computerised operations, but hardly ever a partner actively participating as a direct provider and/or user of data. Problems concerning the protection of privacy and of international data flow, which will certainly emerge in the long run are not dealt with here. Mention shall, however, be made of current OECD work in this field which has already led to the development of guidelines aimed at harmonizing national privacy legislation and preventing interruptions in international flows of data(1). Moreover, questions of copyright, which become important in this context, are not discussed here.

The merging of information, computer and telecommunications technologies now opens up this possibility for the individual household. The systems considered, which are described in the following chapter, are based on the linking of three already-existing technical devices - the computer, the telephone and the television set - by means of a decoder as an ancillary unit to the standard television set and another device adapted to the telephone network. Information providers, e.g. enterprises and public service institutions, feed the information into the computer; subscribers to the system (commercial or private users) have access to the data by a dialling device; the desired information is then received on the television screen or on a special video terminal, generally in the form of a multi-coloured text, although some systems can also transmit pictures. Moreover, the systems are not only conceived to provide information at the request of the user, but also to execute certain operations, e.g. make reservations, transmit orders or make payments.

2. THE PRESENT SITUATION OF CONSUMER INFORMATION

The technical advantages of such a communication system are obvious and if, as Thorelli concisely formulates it, "increased market transparency is

---

(1) These Guidelines, in the form of a Recommendation to the Council of the OECD, were adopted and became applicable on 23rd September, 1980 (Guidelines on the Protection of Privacy and Transborder Flows of Personal Data, OECD, Paris 1981).

what consumer information is all about"(1), the immediate interest for consumer information is obvious too. The new medium is particularly welcome at a moment when traditional instruments of consumer information policy, after a period of rapid growth in importance, seem to have come to a stage of consolidation and, in some cases, of stagnation. Without going too much into the specific features of the instruments of consumer information, it may be worthwhile to outline briefly some of their main characteristics in order to better determine the specific qualifications of interactive videotex systems in this context.

The developments as regards comparative testing and the dissemination of its results in consumer magazines are a case in point. Consumer magazines as the prototypes of independent consumer information have enjoyed an enormous increase in circulation and their influence on public opinion has considerably grown during the last ten years. However, the figures for the German "Test", for the French "50 millions de consommateurs" or for "Which" (United Kingdom) - to take three prominent examples - clearly show that the circulation of these consumer reviews(2) seems at present to have reached its natural limits, although at an admittedly high level and with considerable indirect repercussions, e.g. impact on industry and trade and resulting benefits for non-readers.

Among the many and complex reasons for this relative stagnation, the most important ones merit mention:

- the nature of the publication
- the type of information contained
- the type of reader.

Consumer magazines are in permanent competition with a large variety of attractive magazines of general character which, to a varying degree, but generally up to 60 per cent, are financed by advertising, a type of income which consumer magazines generally refuse. This results in a relatively high price for a relatively sober and unspectacular publication (without denying the considerable progress made in presentation, layout and readability in recent years) and puts the publishers of consumer magazines -

---

(1) Thorelli and Thorelli; Consumer Information Systems and Consumer Policy, Cambridge, Mass., 1977, p. 6.

(2) FRANCE

(50 millions de consommateurs, published by INC - Institut National de la Consommation)

Copies sold	
1972)	Figures not available
1973)	
1974	263,000
1975	284,000
1976	280,000
1977	289,000
1978	253,000
1979	235,000
1980	225,000

GERMANY

("Test"; consumer magazine published by Stiftung Warentest Berlin)

Copies sold (January of each year)	
1972	124,000
1973	216,000
1974	306,000
1975	443,000
1976	545,000
1977	533,000
1978	666,000
1979	616,000
1980	639,000

UNITED KINGDOM

(Which, published by Consumers' Association)

Copies sold	
1971-2	600,000
1972-3	581,000
1973-4	657,000
1974-5	706,000
1975-6	700,000
1976-7	663,000
1977-8	602,000
1978-9	654,000
1979-80	685,000

unless subsidised by the government - a priori in a comparatively unfavourable competitive situation. Secondly, consumers are usually interested in gathering information in connection with a specific purchase or a particular problem, and to act in fact as rational purchasers they should buy a consumer magazine only when it publishes such information on the particular goods they intend to purchase. Thirdly, comparative testing magazines address themselves to the most active consumers, a group usually characterised by a combination of relatively high education, income and occupational status. Thorelli sees this "middle class" syndrome confirmed not only in the United States but in practically all countries with testing organisations(1).

Voluntary informative labelling schemes which have been launched in many European countries during the past decade offer, in principle, a large amount of product-related information at the point of sale. By presenting significant product data they bring the comparability of products to the market place and should thereby incite consumers to make a well reasoned choice. However, as a whole, their actual impact has until now been relatively small and a reasonable coverage of the market has only been reached in some specific product areas(2).

Lastly, consumer advice services certainly constitute in theory an almost perfect consumer information device since they provide comprehensive information which is adapted to the personal needs of the individual consumer. Their obvious drawback lies in the fact that their sphere of action is limited, both geographically and from a cost-effectiveness point of view.

All these arguments, however, should not lead to the hasty conclusion that comparative testing and price-surveys in monthlies, the labelling of consumer products and consumer advice centres do not have any significant impact on consumers and on the market. As an elite group of consumers, the "information seekers", i.e. those subscribing to consumer magazines or actively participating in consumer work, reading product labels and seeking advice, certainly have an influence on their social environment and on producers. Although it is sometimes claimed by the latter that unfavourable ratings in product tests, for example, have only a modest impact on sales, it seems that in the majority of cases the products involved are either modified or disappear from the market.

3. THE CONSUMER INFORMATION CONTENT OF COMMERCIAL ADVERTISING

The philosophy of consumer information has emerged on the basic assumption that information provided by manufacturers and suppliers, through the marketing and, in particular, the advertising of products, has a unique purpose, namely to sell the items involved, and that only genuine consumer information can provide independent factual information. This strict distinction has in recent years been partly replaced by a more subtle interpretation of the relationship between advertising and consumer information. Theory and practice of consumer information policy have to some extent recognised the role which advertising plays or could play in consumer information in a wider sense. The development in Sweden of advertising guidelines for certain articles, i.e. undertakings by the trade concerned to mention certain essential elements of consumer information in advertising, is a practical example of how advertising can be used as a vehicle for objective, product-related information, although it originates directly from suppliers. In France, the practice of informative labelling by manufacturers

---

(1) Thorelli/Thorelli, Consumer Information Systems and Consumer Policy, Cambridge, Mass., 1977, p. 79.

(2) For a more detailed analysis of the development of this type of consumer information system see "Voluntary informative labelling schemes", Report by the Committee on Consumer Policy, OECD, Paris, 1981.

without mention of the supporting labelling body AFEI but conforming to its labelling specification is another illustration of this not yet very strong, but clearly discernible trend.

Theoretical considerations on the role of advertising have already for some time distinguished between the different purposes of the advertising message: attention-getting, information and persuasion. Although the advertising industry tends to over-emphasize its role in informing consumers, there definitely exists an information element in advertising, be it only because it indicates to the consumer the existence on the market of a new or additional product.

This information is not free and consumers obviously pay for it as advertising is an element in the price of the goods and services they buy. But due to its large-scale dissemination, advertising can at least to some extent contribute towards reducing the cost of information-seeking for the consumer by providing basic data which they would otherwise have to spend much more time and money finding elsewhere.

4. CONSUMER INFORMATION AND INFORMATION NEEDS

Past research has shown that consumer information needs, and the time and effort that consumers will spend on searching for information, depend on the speed at which they wish to buy a particular product or service and the nature of that product or service. For example, food is very frequently and repeatedly bought by consumers, generally housewives, and after the initial experience, only marginal new information is sought or used by consumers. However, the purchase of a major product such as a house or an automobile or a sailboat is not made frequently and many consumers tend to seek a lot of information. For other products the value which consumers attach to pre-purchase or point-of-sale information oscillates between these two extremes. Some purchases, while needing specific information, are made quickly, e.g. theatre tickets, some travel, but others are sometimes made slowly, e.g. vacation travel. Some decisions have to be made quickly, such as funerals, where those concerned are particularly vulnerable. With regard to other purchases, especially repair services, consumers do not have satisfactory information available, even if they are prepared to invest much time to search for it - reliance on friends and the repairman may play an important role. All the above aspects of consumer behaviour are important in relation to new systems for providing new types of consumer information.

All these considerations have to be taken into account in evaluating the new information technologies and the advantages they present for consumers from the point of view of rapidity, accuracy and scope. The new medium is, in principle, neutral in the sense that it can convey all types of information from a large number of sources, from suppliers of commercial goods and services on the one hand, to public authorities and services on the other. Expectations with regard to its consumer information potential would therefore go both in the direction of more efficient information via non-commercial information providers, i.e. consumer organisations and similar institutions, and towards an improvement of the information character of the majority of commercial messages which the systems will have to carry to be economically viable.

II. COMPUTERISED INTERACTIVE VIDEOTEX - PROJECTS LAUNCHED IN MEMBER COUNTRIES

Rapid developments in the field of electronics, memory technologies and communications technology have led a number of Member countries to launch projects aimed at widening the traditional application of computerisation to new groups of information providers and of information users. Some of the systems are solely conceived with the commercial or professional user in mind. Several of them, however, address themselves to a general public, i.e. the household owning a TV set and a telephone. It is this particular aspect, the transformation of the systems from a management instrument into a familiar household appliance, that probably gives rise to the largest amount of discussion concerning the possible economic, social and cultural impact of such information schemes.

Currently, such systems are operated, mostly on a pilot basis and under various trade names, in 15 Member countries:

Country	Name of the system	No. of terminals
Austria	BILDSCHIRMTEXT	300
Canada	TELIDON	4,000
Denmark	TELEDATA	200
Finland	TELSET	260
France	TELETEL	2,500
Germany	BILDSCHIRMTEXT	5,000
Italy	VIDEOTEL	300
Japan	CAPTAIN	1,000
Netherlands	VIDITEL	2,500
Norway	TELEDATA	60
Spain	VIDEOTEX	750
Sweden	DATA VISION	30
Switzerland	VIDEOTEX	150
United Kingdom	PRESTEL	12,000
United States	Various systems	

The following chapters discuss the possible advantages of such systems, their possible impact on the functioning of markets and the marketing of goods and services, and outline the policy issues arising in this context. This discussion is largely based on the - generally very brief - experience gained with such systems in a number of countries which are described here in more detail.

1. CANADA

Canadian experience in this field is now expanding into a second generation of products (content and indexing). The original technological accomplishments have been augmented by field trial experience and social impact evaluations. The Canadian TELIDON, a system with high quality graphic capabilities made possible through the use of basic geometric elements rather than traditional Mosaic pictures, was developed in 1978. An announcement in February 1981 of an additional $27.5 million government commitment to development and marketing of TELIDON signalled a major effort to popularise this technology.

TELIDON signals are carried through telephone networks to decoder equipped television receivers or CRTs. Decoders are currently manufactured under licence from the Department of Communications. Present capacity must expand before TELIDON decoders can be produced on a large commercial scale. TELIDON like other videotex systems uses a modern interface device for telephone hook-ups. A modem converts digital information to sound and back to computer understandable form.

Two features not found in TELETEL or PRESTEL(1) are multipage processing (as opposed to single page) and character storage (as compared with none). Canada's system, as of October 1981 consisted of 4,000 terminals in experimental use. At the end of 1981 TELIDON terminals in experimental and commercial applications in both Canada and the United States probably numbered close to 6,000.

It is intended to allow universal access to the system and, at present, no rules exist governing the messages made available by information providers. A "de facto" editing is undertaken by the companies selling pages to advertisers to the extent that information not considered useful is discouraged. The Federal Government is using TELIDON to provide public access to government information and in October 1981 was operating 100 experimental terminals in shopping centres across the country with access to a large public data base. If the public uses this service there are plans that could provide up to 3,000 terminals in more localities.

Most applications of TELIDON are interactive, although the systems are not yet functioning fully in terms of product orders and funds transfer. From mid-1981, a test in Vancouver has 150 terminals hooked up for electronic messaging. Telecable Videotron in Montreal has 150 terminals and New Brunswick telephone has 50. Alberta Government Telephone and Saskatchewan are running trials as well. Field trials are underway in Manitoba where project IDA (Manitoba Telephone Company) provides via coaxial cable a variety of videotex services including telemonitoring, teleshopping and electronic news to 100 rural homes. Manitoba Telephone is also conducting project ELIE (150 terminals) in two other communities (St. Eustauche and Elie) using fibre optics technology.

Also in Manitoba is an operational service called GRASSROOTS and it provides, on a constantly updated basis, world weather information, commodity prices and many other facts of vital concern to farmers. Bell Canada (operating in the provinces of Ontario and Quebec) has project Vista in Toronto, Ontario, Quebec City and Montreal, Quebec using the Bell system to provide information on sports and news as well as shopping on the T.V. Screen. In October 1981 Vista had 491 terminals in place. In addition, the experimental services like Manitoba's IDA provide or will provide a variety of information, reservations, teleshopping, monitoring, messaging and, eventually, banking services to consumers.

TELIDON has an international presence as well, with experiments in Caracas (Venezuela), Los Angeles, California, and Washington D.C. (United States), and Teleglobe, with 75 to 100 terminals around the world. An industry investment stimulation program will probably account for even greater growth than forecast. Under this scheme Canada's Department of Communications will give industry purchasers of TELIDON terminals one at zero additional cost for each unit purchased.

2. FRANCE

The TELETEL interactive videotex system was developed by the French Post and Telecommunications Administration. Upon a simple telephone call, the user obtains, on the screen of his television set, the information he desires and communicates with the computer by means of a simple dialling device.

---

(1) TELETEL is the French, PRESTEL the United Kingdom system.

This project, which has been launched in the Yvelines Department in autumn 1981, concerns some 2,500 households which will have access to various kinds of information: administrative and financial information, timetables for railways, cinema programmes, commercial information, consultation of catalogues, etc. They will, eventually, have the possibility of ordering goods and services, making reservations and money transfers, playing games or following educational programmes.

Consumer information input is, at present, provided by the Institut National de la Consommation (INC) which, for this purpose, receives a special government grant. It develops two different sets of information, the one related to general issues, e.g. information on consumers' rights, doorstep selling, insurance contracts, after-sales service, and the other to product-related information, e.g. results of comparative tests concerning major household appliances.

Among the systems not linked by telephone, the videotex system ANTIOPE may be mentioned. It provides the users with Stock Exchange information (ANTIOPE BOURSE), weather reports (ANTIOPE METEO), postal services (ANTIOPE POSTE). However, users receive this information without any possibility of entering into a dialogue with the information provider.

3. GERMANY

The German "BILDSCHIRMTEXT" system constitutes an adaptation of the United Kingdom PRESTEL system. It is currently being tested by the German postal administration with the intention of creating a complementary telecommunications system which combines the advantages of electronic data processing with the higher utilisation of developed infrastructures (telephone and television).

BILDSCHIRMTEXT permits written "dialogues" with the computer and between users. The functioning of the system is based on the following facilities. BILDSCHIRMTEXT centres, which are owned by the postal administration and will be established at the main centres of the transmission network and external computers owned by information providers (e.g. mail order houses, banks, etc.), store the information. At the subscribers' end, the screen of the television receiver or a special video terminal is used for the display of information in the form of a multicoloured text or simple pictures.

The BILDSCHIRMTEXT system has been tested since June 1980 in two differently structured urban centres, Berlin and the Düsseldorf/Neuss area. These field trials are planned to be carried out, according to "Land" laws specially adopted for this purpose, during a period of at least two and not more than four years. The German postal administration which is responsible for the network intends to extend the new service to the whole territory of the Federal Republic if the trials are satisfactory.

On 9th February, 1981, 1,783 BILDSCHIRMTEXT equipped television sets in Berlin (including 411 sets used for commercial purposes), and 1,417 (with 481 commercial users) in Düsseldorf/Neuss were connected to the trial operation. By that time, 509 information providers had come forward in each trial area; the number of retrievable BILDSCHIRMTEXT pages amounted to 81,120 in Berlin and to 90,326 in Düsseldorf/Neuss. Consumer Information is part of the data made available by the system. "Stiftung Warentest", Germany's comparative testing foundation and the consumer centres in Berlin and North-Rhine Westphalia participate already now as information providers.

As a non-interactive system, broadcast teletext is sent out in a type of "piggyback" operation using the vertical blanking interval of television signals emitted from the transmitting station to the subscriber and reproduced on the screen of the subscriber's - suitably supplemented - television receiver. Nationwide trial operation of broadcast teletext has been running since June 1980. Trial operation is planned to last two years with the possibility of a further year's extension. The teletext programme envisaged covers 75 or more (TV screen) pages, whose information content is transmitted in cyclic repetition at least every 25 seconds. These multi-coloured teletexts

provide notice of television and radio programmes, reviews of the national daily press and up-to-date reports (news, weather, sports, Lotto, etc.) but no commercial advertising. The number of users is now estimated to be above 100,000 (about 45,000 suitably supplemented television receivers have been sold).

4. JAPAN

CAPTAIN, the Japanese interactive videotex, also links ordinary TV sets with computer centres, and displays information requested by subscribers with graphics and texts in the TV system.

The plans for setting up the Captain system were announced by the Ministry of Posts and Telecommunications in April 1978. Since then, the MPT joined by NTT (Nippon Telegraph and Telephone Public Corporation) with the co-operation of a number of firms attempted to accelerate the developmental process. In 1979, the pilot-project was launched with about 1,000 selected monitors both in homes and in businesses in Tokyo. The first half of the experiment continued until March 1981, and the second was launched in August 1981.

Information frames stored at the computer for the first trial reached 100,000:

	Installed number	Frames renewed	Total
Movie and theatre guide, hobby quiz, game	18,000	43,000	61,000
Education, study	14,000	13,000	27,000
Sports	11,000	31,000	42,000
Living	11,000	3,000	14,000
Business	8,000	16,000	24,000
Travel guide, traffic news	8,000	11,000	19,000
News, weather forecast	5,000	44,000	49,000
Shopping	4,000	20,000	24,000
Others	21,000	19,000	40,000
	100,000	200,000	300,000

The bulk of this information had been provided freely by 200 information providers including 37 publishing companies, 26 advertising companies, 25 newspaper companies, and 9 broadcasting companies.

Users had to pay for the use of the telephone circuits and could have access to the computer-filed information from 10 a.m. to 10 p.m. Children usually used Captain from 2 to 4 p.m. From 4 to 6 p.m. it was mainly used by housewives, and husbands often got the information through Captain between 8 and 10 p.m. The latter user group has suggested an extension of the service hours until midnight. The frequency of access has gradually increased. Heavy viewers approached this system more than once a day. One communication period is about 15 minutes on average. The total number of accesses was 3,110,000.

Movie, theatre guide, quiz, game	1,500,000
News, weather	330,000
Education, study	320,000
Sports	310,000
Living	70,000
Shopping	150,000
Travel guide	130,000
Business	110,000
Others	190,000

Surveys showed that more than half of the users wished that a commercial service be started within two or three years. Residential users added that they were prepared to pay ¥3,000 to ¥5,000 per month for the system. The business users' view was that they would spend ¥10,000 to ¥15,000 monthly.

It was therefore decided to start the commercial operation of the system in 1983. The first service area will be Tokyo, but the system will be gradually expanded all over Japan. Until then, the experiment will continue on a larger scale. At this stage, the number of terminals will be doubled. Users can get the service of CUG (Closed User Group), Order Entry Service etc.

5. NETHERLANDS

In the Netherlands, the VIDITEL system is technically compatible with the English "Prestel" and the German "Bildschirmtext". This experiment was started in August 1980 for the period of one year. Subsequently, it was decided to continue Viditel as a public service. In early 1981 there were around 2,500 connections to Viditel distributed approximately as follows:

Private	36 per cent
Business	27 per cent
Information providers	16 per cent
Public connections	20 per cent

There were around 190 independent information providers and 300 information providers united in umbrella organisations. 89,000 information pages were available. As with the English Prestel system, Viditel allows the option to restrict the access to certain pages (Closed User Groups). This can be done with confidential business information, for example.

Various research projects are being conducted in order to follow the attitudes and the behaviour of users and non-users of Viditel.

6. UNITED KINGDOM

PRESTEL, the United Kingdom interactive videotex system was in fact the forerunner and model for most of the other systems now introduced. Following three years of pilot trials and test services, a full service first became available in September 1979 in the London area. Shortly thereafter it became available in Birmingham, Edinburgh, Glasgow, Liverpool, Manchester and Nottingham and, with a rapid extension of the network during 1980, some 62 per cent of United Kingdom telephone customers now have local call access (expected to increase to something of the order of 95 per cent by 1985). Customers outside these areas can have access, but at an increased (long-distance) call charge.

At the moment, there are some 70 different British Telecom approved models on the market, either as separate sets or as adaptors for existing television receivers, available from about 20 competing suppliers. The sets can either be bought or rented.

At 31st October, 1981, there were some 190 Information Providers and 539 Sub-Information Providers providing pages on Prestel covering a wide range of subjects: travel timetables and holidays, entertainment, financial information - share prices are updated three times a day - legal information, property - full colour pictures can be transmitted as well as text and graphics - public information provided by Government Departments, consumer information provided by the Office of Fair Trading, the Consumers' Association and the National Consumer Council, recipes, the weather, sports results and games. Many of the information pages are provided by commercial organisations advertising their own goods and services.

At 31st October, 1981 there were some 13,800 terminals in use (by 12,120 users), primarily in the business sector of which the travel industry

accounts for a significant proportion. Residential terminals amount to 2,000. Public access is generally limited to advisory centres, libraries and other national organisations and local authority premises.

In Autumn 1981 a special Guided Public Access project was launched by the Prestel Social Information Providers' Group under the sponsorship of the National Consumer Council and with the support of a government grant. The project will mean putting public access Prestel sets in such places as post offices, citizens' advice bureaux, social security offices, town halls and shopping centres in three experimental areas. The sets will be available for use by the public with the help of trained staff. The reactions of users and organisations will be carefully monitored to see, amongst other things, how useful consumers find the information on Prestel, how best to present it to meet their needs as well as what factors could encourage or deter the development of the domestic market.

At the end of October 1981, PRESTEL provided 193,494 frames of information which are categorised and cross-indexed (or routed) so that the user can refer to the related pages. By 31st October, 1981 there had been over 103 million accesses to the system and the monthly level of accesses had reached about 5 million. PRESTEL user guides and directories are available to enable users to trace and call up relevant pages more readily. The PRESTEL computer currently has a capacity of 250,000 pages, but this is expected to increase to 500,000 before the end of 1982. Between October 1978 and May 1981 there were over 70.5 million accesses to the system.

PRESTEL also provides a response facility which enables a user to send back a message to the Information Provider by pressing buttons on his keypad. The facility can be used, for example, to request further information, brochures, etc. and sales calls, and to order goods or services - currently including books, wine, cameras, calculators and theatre tickets - as well as paying for them by keying-in the user's credit card number. PRESTEL has announced that over the next five years the service will be extended to include a two-way message facility, a "Gateway" system to enable data bases held on "third-party" computers to be accessed, and the development of "regional Prestel". A wide range of technical enhancements has been developed and demonstrated, including high definition graphics as well as extended characters and full photographic transmission capability.

Access to pages can be restricted to users nominated by an Information Provider (Closed User Groups) [illegible], for example, confidential information or specialist business applications, either within the Information Provider's own business (personnel records) or to certain customers (stock availability and prices).

A number of non-interactive teletext systems have been introduced in the United Kingdom of which the most significant are CEEFAX and ORACLE operated respectively by the BBC and Independent Television. These systems use spare capacity within the existing television broadcasting network, to transmit pages of information which can be received on television sets fitted with a teletext decoder. Apart from the initial cost of purchasing or renting an adapted television, the services are free of charge. The two systems each provide some 200 pages of information including such items as news headlines, review, sports results, share prices, recipes, quizzes, weather forecast and public service information. The user can select the input to be received by use of a control pad but cannot enter into a dialogue with the Information Provider. At the end of October 1981 over 200,000 teletext terminals were in use in the United Kingdom receiving the non-interactive system.

III. TECHNICAL ADVANTAGES OF THE NEW SYSTEMS

1. THE INFORMATION FUNCTION

The examples given in Chapter II above show that the system can convey an almost unlimited spectrum of detailed and precise information. What distinguishes the new technologies from the classical media is that the consumer does not have to go through all the information available in order to find what he wants but can select it directly and only receives the information he requests.

Another difference as compared with today's means of mass communication is the fact that the system represents a relatively sober and functional medium which is controlled by the information seeker. The mere indication of prices, fares, tariffs and timetables, even where sophisticated items and exotic places are involved, does not lend itself to a high degree of salesmanship.

The facility of updating the information is another advantage of the systems which, in this respect, far out-distance other media. Moreover, the information and other facilities are usually available 24 hours a day and on weekends.

Another, probably the most important, of the positive features of such systems is the rapidity with which information can be obtained. Selective and comparative shopping is one of the basic rules of good consumer behaviour but it requires considerable effort and is time-consuming. This time element has been taken into account in modern consumption theory which considers time as a "human capital" having a value as have any other goods(1). The value of time invested by an information seeker in comparative shopping would have at least to break even with the possible gain he can realise in the market.

In this connection, the information provided by the computerised interactive videotex systems would, from the cost-benefit point of view, represent a substantial progress - at least in theory. The time necessary to obtain the information needed would be reduced to a minimum and consumers could be expected to accept paying for this advantage.

2. ORDERING AND PAYMENT FACILITIES

In addition to the aforementioned information function, the systems are conceived to provide, in the long run, a number of additional functions, such as enabling the information user to make reservations, transmit purchase orders and pay bills. The obvious convenience of all these facilities, the immediate information without paper support, the "cashless paying" and, finally, the "shopless shopping" constitute for the time being the most spectacular prospective innovations in retail trading. Whether and to what extent such convenience is actually attainable, desirable and accepted by consumers is, however, a question which present short-term experience of the systems cannot evaluate.

---

(1) See Henri Lepage "Demain le capitalisme", Paris, 1978, p. 371, which describes in a concise way the economies of time and the new theory of consumption mainly developed by Gary Becker.

IV. PROBLEM AREAS IN CONNECTION WITH THE OPERATION OF INTERACTIVE VIDEOTEX SYSTEMS

The emerging of new technologies has usually been accompanied by contradictory views about their desirability, usefulness and economic and socio-cultural impact. In the case of the interactive videotex systems, which could influence almost all sectors of daily life, this discussion is particularly heated. However, it is also true and admitted by consumer leaders that rarely has the birth of a new medium been so carefully handled(1). The problems that have already appeared are mainly of a practical and legal nature; others concerning the broader economic and social aspects are at present mainly speculative. The following chapter sets out some of the main difficulties that have already arisen or are expected to appear with the large-scale introduction of the system for

- consumers
- information providers
- the general social and economic environment.

1. CONSUMER PROBLEMS

a) The cost-element and the access to the system

For both commercial and private users, the new technology is valid if it provides services with a better price/performance relationship than other traditional means of information. At the present stage it seems extremely difficult to evaluate costs for consumers. Purchase cost of the appliances would depend on the possibilities of large-scale production (TV set with incorporated videotex facilities or separate devices linking television set and telephone). Charges for utilising the system, which would have to be paid by the consumer like a telephone bill, might also depend on the number of users.

In the countries at present involved in field trials, a large majority of households is already equipped with a television set and a telephone. However, the adaptors linking the two and the keypad are still relatively expensive, about Frs.5,000 in France and DM.200-500 in Germany. In the United Kingdom, the high price of the equipment for private users is considered as one of the main reasons for the relative lack of success of the system among the general public. It is generally considered by manufacturers that, provided the market can be adequately developed, a new generation of TV sets with incorporated decoding and dialling devices would not be much more expensive than today's television sets. In Canada, current prices (October 1981) for a basic home decoder are about $2,000 and for a basic user terminal $1,200; prices projected for 1983 however are seen as coming down to $500 for the home decoder and $300 for the terminal.

The operating cost for the user seems to be a more complex matter. In the French TELETEL system the billing is made, as for normal telephone

---

(1) A. Land, Head of Publishing, Consumers' Association, London, at the Brussels Colloquium on "The Consumer and New Technologies of Information", 30th and 31st March, 1981, jointly organised by the Commission for the European Communities and the University of Louvain Law Faculty.

communications, according to the duration of the communication, i.e. Frs.0.50 for five minutes. The bill is submitted separately from the telephone bill and the charge for each communication could also be indicated on the screen. In addition, some of the services and information offered will be paid for individually, either on a case-by-case or on a subscription basis. Corresponding tariffs could be indicated on the screen before the service or information is made available. The amount of operating cost is difficult to evaluate and one of the main aims of the pilot project in France is to measure the actual extent of these costs. The French authorities think that the system should include an appropriate amount of cost-free information.

In the present German pilot project, in addition to a base rate similar to that for local telephone communications, the maximum price per "page" of information is DM.0.99. It is believed that the majority of information providers will fix the price of the services according to marketing requirements.

The United Kingdom distinguishes four separate costs to the user of the PRESTEL system:

a) the cost of purchasing or renting a set. The cheapest sets are the small desk-top monochrome models available from about £600, which cannot receive television programmes and are mainly suitable for business use. The most expensive are colour sets, which can receive television programmes and have remote control, costing £700 - £1,000 - that is about twice the cost of a conventional television set but substantially less than a computer visual display unit or word processor. Adaptors fitted to conventional television sets cost £170 to £200. A very large proportion of the market is rental at an annual cost at the lower end of about £250;

b) the cost of using the PRESTEL computer. Charges are related to the time the user is connected to the computer, based on a unit which, like normal telephone charges aimed at smoothing out demand peaks, buys more time in the evenings and weekends than during business hours: most charges will be at the local call rate and the current cost per unit is 4p which buys 1 minute at peak times and 4 minutes off-peak. Equipment is available to enable the pages to be recorded or printed out by the user for playback later "off line" - a facility likely, on cost grounds, to be used more by business than by consumers;

c) the cost of installation and maintenance. There is a charge of £15 for the installation of the jack socket connecting the set to the telephone line and a rental of 15p collected with the call charge - (b) above - by the normal quarterly telephone billing procedure;

d) the cost of the information and services obtained through Prestel. Information providers can charge any sum up to £1 sterling for each page available. However, in practice, whilst some providing high-value business pages charge 15p-20p, others aiming at a larger, more sensitive market may charge only 1p; many, including government departments, public service information providers and advertisers, make no charge and routing pages are generally free of charge.

Prestel is mainly used at present by commerce and industry and although its development and marketing have been directed in the past towards both business user and consumers, greater emphasis is being placed upon marketing to the business sector over the next couple of years. The major obstacle to mass domestic usage is obviously cost, which is expected to be reduced in real terms as the technology is developed and general usage is increased. It has been suggested that if videotex systems follow the growth pattern of the telephone itself in the early decades of this century, then the present 9:1 ratio of business to residential usage could be reversed to 1:5 by the 1990s. But that depends essentially upon whether individuals consider that such systems and the services which they provide - electronic mail order and "armchair shopping" - represent value for money by themselves and compared with the cost and time of using other sources and methods; and on maintaining simple operations for calls and routing and readily understood page layouts.

First evidence in Germany and the United Kingdom therefore suggests that, once the system has been successfully established, it will first gain importance in the commercial sector and in well-to-do households. Consumer

information centring on comparative tests concerning high value consumer durables and explanations of general legal character coupled with advertising of relatively sophisticated goods and services would cater mainly for a relatively privileged clientele. Thus the "middle class syndrome" considered as a typical feature of comparative testing and consumer magazines, would not be absent from videotex consumer information either. Moreover, many consumer representatives have doubts whether the average consumer frequently needs restaurant guides, airline timetables etc. and whether he would be prepared to pay for this occasional convenience.

In order to make interactive videotex systems more accessible to the general public, consumer or citizen's advice centres in the United Kingdom and Germany have been equipped with terminals which can either be operated by the staff to provide free information to consumers requiring assistance or be operated by the consumer himself for the same purpose. This is also planned in the French pilot project.

b) Consumer acceptance

First experience with the pilot projects seems to indicate that they do not necessarily meet with great enthusiasm among prospective users. In Germany, for instance, in each of the projects, the 3,000 household quota was subdivided into 2,000 private subscribers and 1,000 subscribers to be nominated by information providers. In February 1981, 96 connections were still available for private subscribers in Berlin and 729 in Düsseldorf. In Berlin, 284 subscribers were still to be nominated by information providers and in Düsseldorf the figure was 270, although this situation was partly due to difficulties in providing the hardware.

First experience with the PRESTEL system confirms this lack of genuine consumer interest. The Consumers' Association, publisher of WHICH, became strongly involved in the PRESTEL system, and provided some 6,000 information frames, making it one of the largest information providers. The relatively disappointing outcome of the experience up to now is largely attributable to the small number of consumers who are subscribing to the system which, in turn, is probably caused by high set and usage costs to date. The Association is, however, maintaining an interest in PRESTEL and hopes that in the long term there will be enough consumers subscribing to the system to justify their interest. In the short term it is involved in promoting the use of Prestel in public places such as advice centres. In the Netherlands, the Steering Committee following the introduction of the system concluded that at present the relatively high cost together with the relatively difficult economic situation will be prohibitive for a fast penetration of VIDITEL on the consumer market.

A trial use of the Prestel system was organised in one of the United Kingdom Consumer Advice Centres where the terminal was operated by consumer advisers as a management tool. The trial did not seek to provide an in-depth study of the general effectiveness of PRESTEL, but rather to gain some practical experience of the features which might be of particular relevance to consumers and the work of an advice centre. It showed that PRESTEL was a useful tool in consumer information and education and as soon as the staff was acquainted with the new medium, access to information was faster through videotex, in spite of the staff's experience in searching information from traditional sources. The system was particularly useful in connection with requests concerning price and service information for durables, tourist information, comparative tests, legal information, retail food prices and nutritional questions. The results of this trial are described in more detail in Annex I.

In Japan, a survey undertaken by a consultative body to the Ministry of Posts and Telecommunications and the Nippon Telegraph and Telephone Public Corporation showed a more positive reaction on the part of the users who, apart from suggestions concerning specific features to be improved, were on the whole satisfied with the system and its future prospects. A summary of this survey is presented as Annex II.

Although the new medium is described as basically "user friendly", practical application seems to pose some problems. Apart from those which concern

certain groups of consumers such as the elderly - children generally seem to have no major difficulties in using the system - there seem to be certain psychological barriers to be overcome by the ordinary consumer. Although rapidity of the information is one of the major characteristics of the system, it may take some time for an average user to acquire the necessary skill to enter into a dialogue with the computer and to retrieve the specific information required according to a "search tree" technique. Some consumer resentatives consider the whole experience as a technical game rather than a meaningful supplement to traditional consumer information sources. This attitude probably constitutes not so much a flat refusal of the technology as a whole, as a recognition of the fact that the sophisticated technologies used are not yet matched by an adequate optimisation of content and presentation of the information.

Consumer representatives and others sometimes raise the broader question of principle as to who actually wants the new technologies. Obviously, projects of this order of magnitude have to rely on a massive support by the national telecommunications authorities, and a successful operation would increase their receipts. Strong support also comes from manufacturers of the appliances who clearly recognise the marketing potential of the innovation in a rather saturated market for TV sets. This means that two of the parties involved in the functioning of the system are highly interested in the success of the operation. The best way of achieving this aim is probably to convince consumers of the genuine advantages they can derive from the new media.

c) Legal problems

i) Problems concerning the information function

Problems related to the information function centre on two central notions in connection with all types of communication: the truthfulness of the information and the freedom of information. The latter notion will be dealt with in connection with the access of information providers to the system.

It seems a priori that the laws and regulations existing with regard to telecommunication, freedom of the press and unfair marketing practices would, subject to some amendments, be sufficiently broad to cover interactive videotex systems. The main problems which may arise for consumers in connection with the information received would seem to be covered by unfair advertising or unfair marketing regulations.

The fact that a number of specific problems might arise has, however, led the countries involved in such projects to consider the development of specific guidelines and, in the case of Germany, regulations. One of the basic problems is in fact the "labelling" of the message. As mentioned earlier, information on these systems comes from suppliers of goods and services and from public service institutions. Since the medium as such is neutral in the sense that it does not make a graphic or other distinction in the presentation of advertisements on the one hand and of objective information on the other, one of the first consumer requests was the provision of a clear distinction between the two categories of messages. In Germany, the two "Länder" regulations accompanying the introduction of the BILDSCHIRMTEXT field trials take care of this through a number of specific stipulations. They provide that any information or service offered must show the name of the information providing firm and must make it possible to retrieve its address. Advertisements (in Berlin: commercial advertisements) must not be displayed when unsolicited or simultaneously with other information or services; moreover, they must be marked as advertisements.

This distinction poses certain problems: it is difficult to decide to what extent railway schedules, airplane tariffs and timetables, for example, constitute advertisements. In Düsseldorf, they are considered as advertisements, but this interpretation is not followed in Berlin. Another problem arises where advertisements are made in the interest of third parties, e.g. when a local tourism board offers a list of hotel addresses. The way advertisements are marked as such presents another practical difficulty if information providers attempt to avoid a clear and conspicuous indication.

In the German experience, practical problems of this type have already emerged. Consumer information is offered under the general heading "Advice, Assistance, Consumer Information". Since information providers can freely choose the category under which their services are to be presented, the above heading may contain messages which could clearly be considered as advertisements such as information on television repairs, for example.

In the United Kingdom there is no specific legislation for the PRESTEL system, nor any detailed controls over its operation and content: reliability of information is the responsibility of the information providers. But they are nevertheless subject to the whole gamut of legislation which applies to other forms of information, both criminal and civil, and covering, inter alia, trade descriptions. They are required by the terms of their contract to display their name and the price for each page of information: otherwise they have complete editorial freedom, subject of course to those general legal requirements and constraints and to a Code of Conduct which has been developed by the Association of Viewdata Information Providers. Consumers have the same legal rights against Prestel information providers as they have against traders and advertisers using other media to promote their goods and services. In April 1981, the Director General of Fair Trading announced the setting up of a Working Party to investigate the implications for consumers of the development of micro-electronics in retailing, including interactive Videotext systems such as Prestel. The Working Party, which includes representatives of Government, retailers, bankers, consumers and British Telecom, is expected to report in early 1982.

In France, the situation is somewhat similar. Although at present no legal requirements exist, the contracts made between the postal authorities and the information providers include a commitment for the latter

- to respect any new regulations or voluntary code of conduct which might be developed;
- to indicate the price of services which have to be paid for;
- not to give to third parties any personal information concerning the user;
- not to undertake any research, survey or enquiry without written agreement by the administration.

Moreover, at the request of the Parliament, the Government has now set up a Commission for the monitoring of computer information for the general public ("Commission de suivi des expériences de telematique destinée au public"). This Commission is chaired by a high ranking judge and comprises deputies, senators, representatives of the Press and of the information providers as well as of the administration. Some of the members of this Commission are also involved in the activities of the "Informatics and Freedom Commission", which has important monitoring powers with regard to the protection of privacy.

Similar provisions exist in Germany, where it is recognised that problems concerning the protection of the user's privacy may arise from the fact that the BILDSCHIRMTEXT centres will collect data, if only for purpose of invoicing, which could be used electronically to compile user profiles. Information providers must, in accordance with the regulations on the trial run of BILDSCHIRMTEXT, guarantee to comply with certain regulations on the transmission and cancellation of personal data. The protection of privacy is one of the main subjects of research in connection with the pilot project.

In Japan, the CAPTAIN Association of Information providers has tentatively adopted guidelines in July 1980 and is now considering a Code.

In Canada, no specific legal framework exists at this point governing the relationships between information providers, system operators and users. The Canadian Videotex Consultative Committee is working towards recommendations regarding the reliability of information and interface, data transmission, technical, legal and advertising standards for the industry. It is considered that the major problem may arise in connection with the transport of flows of information and that it might therefore be necessary to establish the nature of responsibilities for monitoring and enforcing against violations.

tion providers, publishers and the Consumer Union. In the second interim report of this committee, published in May 1981, a paragraph was included concerning the position of the consumer, although in the near future the Committee expects to see mainly (semi-)professional application of the system. The Committee is of the opinion that Viditel is potentially an important information source for consumers but noted several fields where special attention is required because of possible negative effects on them. Examples of possible problems mentioned by the Committee were:

- information to the consumer on the possibilities and limits of Viditel and on the purchase and operative costs of the hardware and the actual use of the system;
- expected rapid technological developments will make present components obsolete;
- accounting and visualising costs during use;
- division of system costs between consumers and information providers;
- recognisability of information, including the distinction between commercial and non-commercial information;
- the need for regulations against misleading information;
- the necessity of a well-balanced supply of information including information from non-profit organisations like consumer organisations;
- the need for a code of conduct for purchasing via Viditel ("teleshopping");
- the need for a good procedure for handling complaints.

At the moment several initiatives to develop codes of conduct are being taken. The Government closely watches the developments involving Viditel in order to develop, where necessary, an active policy for consumer protection in this field.

A problem directly related to the dissemination of consumer information is the treatment of the results of comparative tests and comparative price lists with full identification of brands and traders. Leading cases in Europe, in connection with the printed media since the development of the consumer movement some 10-15 years ago, have established that the publication of such data does not interfere with unfair competition laws if comparison is made with the necessary care by an independent person or body who is not a competitor. The question of price comparisons does not yet seem to be entirely settled in all systems. "BILDSCHIRMTEXT" provides this specific information: it can give general advice for a purchase in a particular product group, quality ratings with approximate price indications, and also prices actually charged in identified shops of a given area. Similarly in the United Kingdom, PRESTEL's consumer information section provides price comparisons concerning identified brands and traders. In Canada, the question of comparative price information does not raise any legal problems.

ii) Problems concerning the operational facilities

"Cashless paying" and in particular "shopless shopping" raise a number of complex legal issues. They mainly concern, with regard to offers made by catalogue traders,

- the conclusion of the contract (validity of the offer, etc.);
- the lack of written evidence;
- the handling of dialling mistakes or abusive operation (by children for instance) and the reliability of the transmission of data;
- the applicability and presentation of standard contract terms.

When credit facilities are used by the consumer, the applicability of "cooling-off" periods and other related regulatory provisions (e.g. indication of the cost of credit) has to be taken into account. Where the consumer makes a pre-payment and then does not receive the desired merchandise, an even more serious problem of evidence may arise. Some countries consider that this problem may become even more important in view of these systems' intrinsic tendency towards pre-payment.

These problems will have to be dealt with by adequate regulatory or voluntary arrangements(1). On the other hand, some of the problems seem, at least at present, to be of relatively academic interest. Catalogue traders, in particular the larger ones, usually handle credit facilities and facilities concerning cancellation and return of unsatisfactory articles in a rather generous way, going often beyond the conditions offered by other traders or required by law(2).

In this context it is pointed out, probably with some justification, that already a large number of contracts are concluded by telephone without giving rise to a disproportionate number of complaints. Nevertheless, it may be useful to provide for some legal or voluntary codification of the principles governing such sales.

Another potential problem concerns the retaining of copies of advertisements. The information provider may himself insert and subsequently withdraw material which may misleadingly induce a consumer to make a purchase. There may, however, be no proof, unlike the case of a newspaper or magazine advertisement which the consumer can produce in support of a claim of misrepresentation or misdescription. There is no evidence of any such problem having yet arisen.

2. PROBLEMS FROM THE POINT OF VIEW OF INFORMATION PROVIDERS

a) Cost and access to the system; effect on the market

Access to the new information systems is in principle open to all information providers in the countries mentioned in this report.

In Germany, according to the Land Laws on the testing of BILDSCHIRMTEXT in Berlin and North-Rhine Westphalia, individuals, legal persons and groups of persons may act as information providers. Participation is, however, refused for example to persons or bodies not residing in the Federal Republic of Germany or who do not have unlimited capacity of contracting.

The situation is similar in France and the United Kingdom. In the United Kingdom, the information provider has access either by direct contract with British Telecom at an annual rental fee of £5,000 plus £4 per page (for a minimum of 100 pages) or through a so-called "umbrella" information provider, where a small individual information provider does not want to use 100 pages or has too small a data base to justify setting up his own design and terminal facilities to input and update his pages. Thus, access is not restricted and can hardly be monopolised. Big companies may, however, be expected to take a large share of the available information pages in the same way that they use a large proportion of available advertising space in other media.

As a whole, however, it seems, very difficult to evaluate the possible impact on the market and on its structure. It is considered that the cost for information providers should, in principle, not constitute a major barrier to access and prevent small and medium-sized enterprises from participating in the system. However, in view of the advantages large-size competitors have in being able to provide a wide range of data under their name, it may be easier for them to attract the attention of users. It is thought that Bildschirmtext will probably have the greatest effect on the sales of goods and services for which consumers generally tend to "explore the market" prior to purchasing - e.g. high-quality consumer goods and special products which are not readily obtainable in every region and at all times. The transparency of these markets and thereby the price elasticity of demand may be increased

---

(1) See H. Micklitz: Consumer protection and the new media - Proceedings of the CEE/Université de Louvain, Colloquium, 30th-31st March, 1981.

(2) Mail order trading and other related distant selling methods, Report by the Committee on Consumer Policy, OECD, Paris, 1978, p. 12.

considerably provided that Bildschirmtext reaches an adequate number of target groups and that many households take to regularly investing money in information on the market situation.

A substantial increase in the transparency of the market could reduce the number of small local "monopolies" and at the same time enhance sales opportunities for specialised products. Greater opportunities for product diversification as a consequence of enlarged markets for specialities may be to the benefit of companies responding flexibly to changed markets. As the system facilitates an exchange of information between a restricted number of physically separate user-groups, it offers another competitive advantage to small and medium-sized enterprises which could use this potential to the benefit of inter-company co-operation arrangements and thereby strengthen their competitive position vis-à-vis larger companies. Enterprises whose transactions are to a considerable extent dependent on long distance communications with individuals or small groups (e.g. mail order firms), will probably gain large competitive advantages. The system may counteract the tendency towards concentration and give fresh momentum to structural adjustment efforts and competition. Nonetheless, a final assessment of its possible impact in the longer run on the pattern of company size and intensity of competition is not yet possible. Another competition policy problem may arise in connection with the possibility that firms use videotex as an easily accessible exchange-of-information system on prices and conditions of sale for price-fixing agreements.

Contrary to these views, it is also argued that participation in the system, in particular by small and medium-sized enterprises, will be comparatively limited as in the case of television advertisements. It is also considered that the grouping of retailers under the same umbrella might create certain risks of market sharing or other agreements detrimental to the final consumers.

On the other hand, in France for instance, none of the independent consumer organisations have up to now asked to participate in the videotex experience as information providers. In the long run, however, some governmental financial assistance to these associations could be envisaged to foster their participation. At the moment only the National Consumer Institute (Institut National de la Consommation) provides the system with independent consumer information on consumer rights in general and with regard to comparative tests of household appliances. Whether and to what extent the authorities should attempt to influence the balance between commercial messages and public service messages is another question which probably only future experience will help to solve.

The above contradictory views show that it is extremely difficult at the present stage to make any forecast as to whether or not the systems may favour large firms and contribute to greater concentration in distribution. It should be one of the tasks of the authorities to keep access to the system open to all potential information providers and in particular to the small and medium-sized enterprises by maintaining the cost of participation within reasonable limits.

b) Legal problems

The relationship between the organiser of the system and the information provider is somewhat similar to the relationship between printer and editor in connection with traditional printed media. In the United Kingdom the question whether the Telecom authorities have a role similar to the responsible editor is still open. The working arrangement now generally accepted in the countries referred to is to consider the organiser of the system as the mere "carrier" of the message. The information provider is responsible for preparing, editing and designing his own data for entry into the system and for keeping it up to date. British Telecom, for instance, which provides the computers to store the information pages and the telephone lines to transmit them, has not accepted that it has any responsibility for the content of the pages. The information provider has direct access to his pages via the telephone system and can introduce and withdraw material at any time without having to notify or obtain clearance from British Telecom, in the same way as any other message passed down the public telephone network does not require notification or clearance with British Telecom.

Other countries, e.g. Canada, consider that it is not yet certain that the system organisers are merely the carriers of the message and not subject to legal liability. It might well be that there is legal liability and that the system operators and organisers acting as editors will in some cases be held liable for what appears in the system, just as newspaper editors can in some circumstances be held liable.

3. PROBLEMS OF A GENERAL CHARACTER

Obviously, the introduction of new technologies, particularly in a field which finally has a strong impact on human communication, meets with some emotional reservations on the part of the public. These should not be overestimated, as innovation always tends to provoke such reactions.

Another problem concerns the relationship of videotex with the printed media. Although videotex systems can be used to transmit daily news in short form, it is unlikely that they will replace traditional newspapers and magazines. They might, however, compete successfully with printed media as regards certain types of advertising (job offers, advertisements concerning real estate, cars, antiques, etc.). This is particularly important for the regional press which derives a large part of its income from small advertisements.

Finally, it has to be noted that whilst videotex conveys up to now a relatively sober message in the form of a text on a television screen, this may cease to be true in the future. New technologies are emerging which would provide sound and pictures as well as text and be more attractive both for information providers and for consumers. TELIDON for instance, which is conceived as an interactive "graphic" medium capable of conveying more than the printed message, is supposed to affect education, commerce and information profoundly in the long run.

V. CONCLUDING REMARKS

In view of the present early stage of development of computerised interactive videotex systems, it is not yet possible to evaluate their actual or possible future impact on consumer information, marketing of goods and services and competition. However, since all such systems have been conceived with extensive usage by the general public in mind, it is important to continue to discuss their possible economic and legal implications before the facilities are offered on a large scale.

The inherent advantages of the systems, in particular the possibility of providing immediate access to specific information upon request, are at least initially somewhat limited by the fact that they probably mainly benefit a certain type of consumer: the information seeker. Neither the average consumer nor consumer representatives seem at present entirely convinced that the consumer will need the large amount of information provided by the systems, or that this information could not be obtained by other means. This implies that the clientele for these systems would not be substantially different from the usual well-educated middle-class public which reads consumer reviews and responds to consumer information in general. The same sort of social discrimination might exist also with regard to the type of goods and services offered. In the near future, the system could therefore rather widen the information gap between the active and the average consumer.

As regards one of the most interesting aspects of the new information technologies, the impact on competition, the views expressed by the Member countries vary widely but they all agree that, given the short time of practical experience in this field, these considerations are largely speculative. Some consider that in spite of the free access to the system, the larger firms will dominate as information providers, whereas others think that in view of the relatively low cost of entry, small and medium-sized enterprises will have a fair chance to extend their market. The actual impact will probably largely depend on the products or services involved. There is, however, general agreement that the systems should be accessible to all types and sizes of business in order to stimulate competition for the benefit of users.

With regard to the legal framework, existing regulations are considered to be in principle sufficiently broad to cover videotex in its information, marketing and selling functions. However, in view of the specific features of the system - the fact that there is no written evidence for the information carried and the information can be quickly modified - certain weaknesses in this framework may be highlighted by the videotex system even though they may not necessarily concern such systems exclusively.

VI. SUGGESTIONS FOR ACTION

In view of the new and specific features of interactive videotex systems and their potential impact on consumer information and marketing, the relevant authorities in Member countries should closely follow the development of such systems, in particular with regard to the following issues:

1. CONTENT AND RELIABILITY OF CONSUMER INFORMATION

a) The information should contain a clear indication as to whether it is a commercial message or not, which may on occasion be achieved by including the name of the information provider. The distinction should be manifest at least in the classification of information and in the search tree; wherever necessary, it should also be shown on each page of information.
b) The information disseminated should be clear, true, as complete as possible on the subjects covered and in compliance with national regulations concerning fair advertising, marketing and trading practices. The systems should contain a sufficient amount of non-commercial information directed at consumers.
c) The classification of information should be as clear as possible and the search method as simple as possible for users.
d) The information carried on the medium should be kept for a reasonable time, after it has been withdrawn from use or been modified, to the extent required to provide a record for the use of evidence or for control purposes.

2. CLARIFICATION OF CONTRACTUAL RELATIONS

a) Where interactive videotex systems offer booking, ordering or payment facilities, the terms of contract and the relevant consumer protection rules (e.g. consumer credit regulations, cooling-off periods, etc.) should be clearly and concisely set out to the users.
b) Complaints facilities should be established and users should be informed about the ways to use them.

3. USE OF THE SYSTEM

a) Consumer associations and organisations should be offered possibilities of advising on the setting up and the follow up of the systems together with the common carrier and the information providers.
b) The system should contribute to a better transparency of the market, in particular by offering overviews of the market and through the comparative indication of prices of goods and services.
c) The technical and financial organisation of the system should enable enterprises of all kinds and sizes and institutions of various types, to have equal possibilities of participation in the system.
d) The system should operate in full compliance with existing regulations on protection of individual privacy.

e) Public authorities and public service bodies should consider using such systems to offer information of general interest in an efficient way, and installing terminals in information centres open to the public, such as post offices, town halls and public libraries.

f) Experiments with interactive videotex in consumer organisations or consumer advice centres or in other places to which the public has access should be made in order to assess its practical value for consumers and to acquaint them with the new technology.

g) The practical value of interactive videotex systems for consumers should be closely assessed in the years to come.

4. LEGAL FRAMEWORK AND CODES OF CONDUCT

In view of the above, Member countries should examine the need for, and the possibility of, either adopting a specific legal framework or encouraging the development of guidelines or codes of conduct in close co-operation with the interested parties: the operator of the system, the information providers and the users suitably represented.

Annex I

THE USE OF PRESTEL IN A UNITED KINGDOM CONSUMER ADVICE CENTRE

Sponsored by Consumers' Association as part of the Prestel market trial and financed by a grant from the then Department of Prices and Consumer Protection, a trial use of Prestel was organised at a Consumer Advice Centre for a period of 15 months commencing December 1978. In order to control expenditure, Prestel was only operated by members of the Centre's staff and, wherever possible, other than where seeking instant information for consumers visiting the Centre, the use of the service was confined to the most economical telephone charge periods.

A number of Information Providers were repeatedly used by the Centre's staff in the initial period - British Tourist Authority's Discount houses, Consumers' Association, Department of Prices and Consumer Protection, English Tourist Board, Holiday Which?, Lord Chancellor's Office, Ministry of Agriculture, Fisheries and Food, Money Which?, Motoring Which?, National Consumer Council, Office of Fair Trading, and the general Which? reports. The list is perhaps fairly predictable bearing in mind the nature of the workload of an Advice Centre, and in particular the inclusion of the various tourist boards reflects the fact that the service commenced when consumers started booking their summer holidays.

In course of time, further information providers were added to this "most used" list, in particular companies providing product and/or service information. The list broke down into the following groups:

a) consumer durable product price and service information providing up to date information on both product availability and price, proved to be of enormous benefit to the Centre. In particular, it resulted in large savings in staff time as they were required to check local stores personally for such information far less frequently;
b) tourist information as provided by national tourist boards and holiday companies proved extremely useful to the Centre and enabled comparison of similar holidays, hotels etc. to be made as well as providing a useful reference when dealing particularly with complaints;
c) comparative product/service test information as supplied by Consumers' Association through "Which"? and its associate publications. Although all of this information was available in printed form in the Centre, much of the information proved quicker to obtain via Prestel. One area above all others, that of used cars, proved to have major advantages over the printed form, both in the pre-shopping and complaints area, and more than any other subject was the most popular with both staff and consumers. If a consumer had a complaint about a 1975 brand x automobile engine, the Centre was able to display the most common fault for that model/year on the screen and the consumer was immediately able to see if his problem was unusual or not. Although this information was obviously available in printed form, the staff at the Centre found that after the introduction of Prestel they referred to it via Prestel far more often than previously. In other areas of product information the Centre's staff found that their own knowledge of certain products, most commonly domestic consumer durables, meant that the Prestel Service in these areas was used less frequently;
d) legal information normally provided by Consumers' Association, National Consumer Council, Office of Fair Trading and Lord Chancellor's Office, were usually used to confirm points of law, check legal

charges or fees and to note changes in various legislation. Again this method of receiving such information proved far easier and quicker than checking the appropriate printed source;

e) government information provided by the then Department of Prices and Consumer Protection (DPCP) and the Ministry of Agriculture, Fisheries and Food (MAFF). The DPCP information on retail food prices was regarded by the advisers as one of the most useful items of information available on Prestel. MAFF again had a range of much used and useful information, particularly that on food nutritional values and home freezing.

Many other sources of information on Prestel were used, but resort to these five areas was most frequently used and thought of as the most useful by the Centre.

The staff at the Centre were all fully trained consumer advisers and had, in addition to Prestel, extensive printed sources of information. As experienced advisers they had naturally acquired considerable skill in seeking information quickly from such material. Initially the members of staff found that they could, more often than not, "beat" Prestel in seeking the information required. However, as they became more familiar with its operation, and in particular when they knew how to go direct to a source of help rather than starting at the index and working their way through, then their confidence in the Prestel service grew. There was no clearer example of this than that of used car information.

A prime objective of the experiment was to see whether staff time could be saved in researching and record storing. Overall, during this limited period little time was saved in respect of record storage/keeping but in a number of areas, notably the checking of the prices of consumer durables, time was saved.

The trial indicated a number of important points to the successful and efficient use of Prestel in advice and other information centres:

a) it became very clear that staff should receive adequate initial training in the use of Prestel. In particular the methods of quickly obtaining the right information without having to seek it via a page-by-page approach;

b) staff should be encouraged to examine what the Information Providers have to offer and to compile their own index of appropriate page numbers, so that useful information can be obtained quickly and therefore cheaply;

c) staff should be encouraged to use the Prestel service to its full potential: again this can only be achieved if the staff study the information available in the same way in which they would check the index of a book.

ANNEX II

REVIEW OF THE TEST SERVICE IN THE FIRST STAGE OF THE CAPTAIN SYSTEM IN JAPAN

(This review was presented in April 1981 by the consultative body for full operation of the Captain System to the Ministry of Posts and Telecommunications and the Nippon Telegraph and Telephone Public Corporation.)

1. SOCIAL NEEDS FOR THE SYSTEM

a) Home acceptance

The main user of the system in each family is the husband (45 per cent), followed by the children (30 per cent) and the housewife (18 per cent). With regard to the occupations of the users, people in managerial positions do not frequently enter into dialogue with the system. Service hours (10 a.m. to 10 p.m.) make it difficult for them to use the Captain. It has been observed that wives holding jobs sought more information through the system than housewives.

The reasons for using the system varied with groups. Husbands and housewives used it for obtaining information for their knowledge and behaviour, respectively, whereas children used the system for their study and pleasure.

Concerning time of utilisation of the system, husbands took access to the Captain after 8 p.m., housewives from 2 to 4 p.m., and children from 4 to 6 p.m. In other words, each group used the system in accordance with his or her leisure hours. Husbands would like the service hours to be extended beyond 10 p.m.

At present, viewers find it easy to use information directories which allow them to see images on the screen immediately. Viewers having definite reasons for dialling the system have made more use of the information directories.

The Captain System raised no problems for viewers with regard to the television, since information was made available to them from the system at any time and therefore it did not conflict with their watching television programmes. However, viewers think that it is necessary that they be informed about telephoning when the line is connected with the system.

b) The attitude of the users to the full operation

The survey, conducted twice over monitors, has shown that more than half of the monitors will use the Captain System if it is operated on a commercial basis; while less than 20 per cent of the monitors will not. Fifty-six per cent of the viewers wish that the system be in full operation in two or three years. The rest of them also desire that it come into operation within five years. Many viewers suggest that the price of the terminals should be less than ¥60,000; whereas 10 per cent of the monitors are prepared to pay more than ¥100,000 for them.

A large number of viewers are of the opinion that information charges other than telephone fees should be estimated in accordance with the amount of information supplied for users. Monitors who frequently employ the system prefer a fixed charge.

Therefore, we could point out the following:

1. It is necessary to put the Captain System in full operation as early as possible; taking into account the positive attitude of the users towards the system.
2. The charge for use or the cost of terminals should be lowered as much as possible, and the charge system should be formulated to promote a wider use of the new information technology.

c) Business acceptance

The test service was mainly provided for families and information supplied was directed to consumers. Business users have so far used the new technology; not as an information system, but to consider the possible utilisation of it for themselves or to satisfy their curiosity concerning the stored information.

The survey shows that more than 50 per cent of business users will employ the system if it is operated on a commercial basis; while 20 per cent of them will not. Users with a positive attitude towards the system wish for an early full operation of the system; e.g. within two or three years.

At the same time, business users think it necessary for practical purposes that the system be further developed in its function, that business information be increased, and that questions be solved with regard to the connection with their own computer systems as well as legal and economic framework of the system.

2. INFORMATION PROVIDED BY THE CAPTAIN SYSTEM

Information was supplied without any charge under the voluntary cooperation by the information providers which were interested in this new media. The 199 firms which participated in the experiment included: newspaper publishers, broadcasting stations, advertising agents, book publishers, department stores, travel agents, railway companies and public authorities.

During the period of the first stage of the test service, a total of 303,000 pictures were provided; including 99,000 new information pictures and 200,000 renewed information images. This number reached the limit of the system's input and accumulation capacity.

a) Framework of providing information

Information was provided under the principle of free entry and responsibility on the part of information suppliers. The common policy for providing information was not defined and each information supplier presented information in his own way.

b) Sort of information provided and frequency of use

The pictures concerning entertainment and tastes accounted for 20 per cent of the entire supply of pictures stored. Among the renewed images, the number of pictures of news and weather forecasts, sports and shopping were fairly large. As regards the frequency of utilisation by families, pictures for entertainment and tastes accounted for 45 per cent and following these, news and weather forecasts, and educational programmes made up 10 per cent respectively. It may be pointed out that users are likely to take more advantage of the information if the latter is complete as such and can be replaced by new information in good time.

c) Complaints about information

Major complaints concerning information by monitors were as follows:

1. There was a lot of information similar to that supplied by other media.
2. Some information was incomplete and poor in content.
3. Some information was out of date.
4. Titles of information did not often indicate clearly the content, and requested information was sometimes not stored.

d) Interactiveness of the system

The Captain System became popular among users due to quiz and game programmes which were devised from the interactive nature of the system. Educational programmes which made use of the interactiveness were also developed. Users highly valued these because they could study them at their own pace. Education is a promising field for the system to exploit. The Captain System is also convenient for public authorities wishing to provide information which is presently diffused to local communities through printed matter.

The possibility should be explored for making certain information available to particular users; taking into account the close relationship between information providers and the users' special demands. Users were so interested in reservation information for air transportation that they wished that the system would make it possible to provide an order and reservation service. The system will have this function with the development of the Order and Entry Service. Consideration should be given as to how and in which fields this function can be adopted.

e) Institutional problems

Information providers supplied information under the principle of freedom in which they were expected to assume responsibility for their communications. However, as the experiment continued, the following questions were posed in connection with this principle:

1. Can information be freely supplied as long as it does not violate law? Should consideration be given to the family use of the system?
2. Should a code be drafted for those cases where the users' reliability on the system may be damaged; e.g. out-of-date information, differences between title and content?

With regard to aforementioned (1), the Captain Information Providers' Association tentatively adopted the guidelines for its members in July, 1980. As for abovementioned (2), the Association is presently studying a code.

Taking this review into account, it was decided that the operation of the Captain System on a commercial basis would be started in fiscal year 1983. For the time being, the second stage test service is continued with the number of monitors and information frames increased to 2,000 and 200,000 respectively. The service functions for this experiment include Order Entry service and Closed User Group service in addition to information retrieval.

OECD SALES AGENTS
DÉPOSITAIRES DES PUBLICATIONS DE L'OCDE

ARGENTINA – ARGENTINE
Carlos Hirsch S.R.L., Florida 165, 4° Piso (Galería Guemes)
1333 BUENOS AIRES. Tel. 33.1787.2391 y 30.7122

AUSTRALIA – AUSTRALIE
Australia and New Zealand Book Company Pty. Ltd.,
10 Aquatic Drive, Frenchs Forest, N.S.W. 2086
P.O. Box 459, BROOKVALE, N.S.W. 2100

AUSTRIA – AUTRICHE
OECD Publications and Information Center
4 Simrockstrasse 5300 BONN. Tel. (0228) 21.60.45
Local Agent/Agent local :
Gerold and Co., Graben 31, WIEN 1. Tel. 52.22.35

BELGIUM – BELGIQUE
CCLS – LCLS
19, rue Plantin, 1070 BRUXELLES. Tel. 02.512.89.74

BRAZIL – BRÉSIL
Mestre Jou S.A., Rua Guaipa 518,
Caixa Postal 24090, 05089 SAO PAULO 10. Tel. 261.1920
Rua Senador Dantas 19 s/205-6, RIO DE JANEIRO GB.
Tel. 232.07.32

CANADA
Renouf Publishing Company Limited,
2182 St. Catherine Street West,
MONTRÉAL, Que. H3H 1M7. Tel. (514)937.3519
OTTAWA, Ont. K1P 5A6, 61 Sparks Street

DENMARK – DANEMARK
Munksgaard Export and Subscription Service
35, Nørre Søgade
DK 1370 KØBENHAVN K. Tel. +45 1.12.85.70

FINLAND – FINLANDE
Akateeminen Kirjakauppa
Keskuskatu 1, 00100 HELSINKI 10. Tel. 65.11.22

FRANCE
Bureau des Publications de l'OCDE,
2 rue André-Pascal, 75775 PARIS CEDEX 16. Tel. (1) 524.81.67
Principal correspondant :
13602 AIX-EN-PROVENCE : Librairie de l'Université.
Tel. 26.18.08

GERMANY – ALLEMAGNE
OECD Publications and Information Center
4 Simrockstrasse 5300 BONN Tel. (0228) 21.60.45

GREECE – GRÈCE
Librairie Kauffmann, 28 rue du Stade,
ATHÈNES 132. Tel. 322.21.60

HONG-KONG
Government Information Services,
Publications/Sales Section, Baskerville House,
2/F., 22 Ice House Street

ICELAND – ISLANDE
Snaebjörn Jónsson and Co., h.f.,
Hafnarstraeti 4 and 9, P.O.B. 1131, REYKJAVIK.
Tel. 13133/14281/11936

INDIA – INDE
Oxford Book and Stationery Co. :
NEW DELHI-1, Scindia House. Tel. 45896
CALCUTTA 700016, 17 Park Street. Tel. 240832

INDONESIA – INDONÉSIE
PDIN-LIPI, P.O. Box 3065/JKT., JAKARTA, Tel. 583467

IRELAND – IRLANDE
TDC Publishers – Library Suppliers
12 North Frederick Street, DUBLIN 1 Tel. 744835-749677

ITALY – ITALIE
Libreria Commissionaria Sansoni :
Via Lamarmora 45, 50121 FIRENZE. Tel. 579751/584468
Via Bartolini 29, 20155 MILANO. Tel. 365083
Sub-depositari :
Ugo Tassi
Via A. Farnese 28, 00192 ROMA. Tel. 310590
Editrice e Libreria Herder,
Piazza Montecitorio 120, 00186 ROMA. Tel. 6794628
Costantino Ercolano, Via Generale Orsini 46, 80132 NAPOLI. Tel. 405210
Libreria Hoepli, Via Hoepli 5, 20121 MILANO. Tel. 865446
Libreria Scientifica, Dott. Lucio de Biasio "Aeiou"
Via Meravigli 16, 20123 MILANO Tel. 807679
Libreria Zanichelli
Piazza Galvani 1/A, 40124 Bologna Tel. 237389
Libreria Lattes, Via Garibaldi 3, 10122 TORINO. Tel. 519274
La diffusione delle edizioni OCSE è inoltre assicurata dalle migliori librerie nelle città più importanti.

JAPAN – JAPON
OECD Publications and Information Center,
Landic Akasaka Bldg., 2-3-4 Akasaka,
Minato-ku, TOKYO 107 Tel. 586.2016

KOREA – CORÉE
Pan Korea Book Corporation,
P.O. Box n° 101 Kwangwhamun, SÉOUL. Tel. 72.7369

LEBANON – LIBAN
Documenta Scientifica/Redico,
Edison Building, Bliss Street, P.O. Box 5641, BEIRUT.
Tel. 354429 – 344425

MALAYSIA – MALAISIE
and/et **SINGAPORE – SINGAPOUR**
University of Malaya Co-operative Bookshop Ltd.
P.O. Box 1127, Jalan Pantai Baru
KUALA LUMPUR. Tel. 51425, 54058, 54361

THE NETHERLANDS – PAYS-BAS
Staatsuitgeverij
Verzendboekhandel Chr. Plantijnstraat 1
Postbus 20014
2500 EA S-GRAVENHAGE. Tel. nr. 070.789911
Voor bestellingen: Tel. 070.789208

NEW ZEALAND – NOUVELLE-ZÉLANDE
Publications Section,
Government Printing Office Bookshops:
AUCKLAND: Retail Bookshop: 25 Rutland Street,
Mail Orders: 85 Beach Road, Private Bag C.P.O.
HAMILTON: Retail Ward Street,
Mail Orders, P.O. Box 857
WELLINGTON: Retail: Mulgrave Street (Head Office),
Cubacade World Trade Centre
Mail Orders: Private Bag
CHRISTCHURCH: Retail: 159 Hereford Street,
Mail Orders: Private Bag
DUNEDIN: Retail: Princes Street
Mail Order: P.O. Box 1104

NORWAY – NORVÈGE
J.G. TANUM A/S Karl Johansgate 43
P.O. Box 1177 Sentrum OSLO 1. Tel. (02) 80.12.60

PAKISTAN
Mirza Book Agency, 65 Shahrah Quaid-E-Azam, LAHORE 3.
Tel. 66839

PHILIPPINES
National Book Store, Inc.
Library Services Division, P.O. Box 1934, MANILA.
Tel. Nos. 49.43.06 to 09, 40.53.45, 49.45.12

PORTUGAL
Livraria Portugal, Rua do Carmo 70-74,
1117 LISBOA CODEX. Tel. 360582/3

SPAIN – ESPAGNE
Mundi-Prensa Libros, S.A.
Castelló 37, Apartado 1223, MADRID-1. Tel. 275.46.55
Libreria Bosch, Ronda Universidad 11, BARCELONA 7.
Tel. 317.53.08, 317.53.58

SWEDEN – SUÈDE
AB CE Fritzes Kungl Hovbokhandel,
Box 16 356, S 103 27 STH, Regeringsgatan 12,
DS STOCKHOLM. Tel. 08/23.89.00

SWITZERLAND – SUISSE
OECD Publications and Information Center
4 Simrockstrasse 5300 BONN. Tel. (0228) 21.60.45
Local Agents/Agents locaux
Librairie Payot, 6 rue Grenus, 1211 GENÈVE 11. Tel. 022.31.89.50

TAIWAN – FORMOSE
Good Faith Worldwide Int'l Co., Ltd.
9th floor, No. 118, Sec. 2
Chung Hsiao E. Road
TAIPEI. Tel. 391.7396/391.7397

THAILAND – THAILANDE
Suksit Siam Co., Ltd., 1715 Rama IV Rd,
Samyan, BANGKOK 5. Tel. 2511630

TURKEY – TURQUIE
Kültur Yayinlari Is-Türk Ltd. Sti.
Atatürk Bulvari No : 77/B
KIZILAY/ANKARA. Tel. 17 02 66
Dolmabahce Cad. No : 29
BESIKTAS/ISTANBUL. Tel. 60 71 88

UNITED KINGDOM – ROYAUME-UNI
H.M. Stationery Office, P.O.B. 569,
LONDON SE1 9NH. Tel. 01.928.6977, Ext. 410 or
49 High Holborn, LONDON WC1V 6 HB (personal callers)
Branches at: EDINBURGH, BIRMINGHAM, BRISTOL,
MANCHESTER, BELFAST.

UNITED STATES OF AMERICA – ÉTATS-UNIS
OECD Publications and Information Center, Suite 1207,
1750 Pennsylvania Ave., N.W. WASHINGTON, D.C.20006 – 4582
Tel. (202) 724.1857

VENEZUELA
Libreria del Este, Avda. F. Miranda 52, Edificio Galipan,
CARACAS 106. Tel. 32.23.01/33.26.04/33.24.73

YUGOSLAVIA – YOUGOSLAVIE
Jugoslovenska Knjiga, Terazije 27, P.O.B. 36, BEOGRAD.
Tel. 621.992

Les commandes provenant de pays où l'OCDE n'a pas encore désigné de dépositaire peuvent être adressées à :
OCDE, Bureau des Publications, 2, rue André-Pascal, 75775 PARIS CEDEX 16.

Orders and inquiries from countries where sales agents have not yet been appointed may be sent to:
OECD, Publications Office, 2 rue André-Pascal, 75775 PARIS CEDEX 16.

65716-10-1982

BEST COPY AVAILABLE

OECD PUBLICATIONS, 2, rue André-Pascal, 75775 PARIS CEDEX 16 - No. 42541 1982
PRINTED IN FRANCE
(24 82 06 1) ISBN 92-64-12388-7

BEST COPY AVAILABLE

The recent development of interactive videotex systems raises new marketing prospects and new questions for consumer information. This report outlines possible actions that could enhance the consumer information potential of such systems.

(24 82 05 1) ISBN 92-64-12389-X

F 33/650